130 S. COURT STREET TIPTONVILLE, TENNESSEE 38079 CLIFF BERRY, MAYOR

### SHEET INDEX

- l Cover Sheet 2 Topographic Survey 3 Detailed Elevated Tank Site Plan
- Detailed Elevated Tank Elevation
  Water System Layout
- Cedar St. Pump Replacement
  Typical Details

### GENERAL NOTES

MAPPING.

2. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES BY DIGGING TEST PITS AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING.

3. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THIS OFFICE IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.

4. SLOPE SMOOTHLY BETWEEN INIDCATED ELEVATIONS TO PROVIDE POSITIVE DRAINAGE OF ALL AREAS GRADED OR DISTURBED BY THIS CONSTRUCTION. ALL FINISHED GRADING, SEEDING, SODDING, OR PAVIN SHALL BE DONE IN SUCH A MANNER TO PREVENT THE PONDING OF WATER. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS. MAXIMUM SLOPE ON EARTH BANKS WITHOUT SPECIAL TREATMENT IS 3:1.

5. IF ANY STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
6. THE CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ENSURE A SMOOTH FIT AND CONTINUOUS GRADE.

### TANK NOTES

### DESIGN

TANK AND TOWER SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE w/ AWWA D100 AND PROJECT SPECIFICATIONS.

WIND LOAD: 100 mph; D100 SEC. 3.1.4, LATEST REVISIONS

SNOW LOAD: 25 lb / ft; D100 SEC. 3.1.3.1, LATEST REVISIONS

SEISMIC LOAD: AS PER D100 SEC. 13 (SEISMIC ZONE 1)

### MATERIALS

STEEL PLATE: ASTM A283 GR. C / A36 STRUCTURAL STEEL SHAPES: ASTM A36 LADDER RUNGS: ASTM A706

### GENERAL

ACCESSORIES SHOWN ON ELEVATION DRAWING ARE ROTATED FOR CLARITY.
 ALL LADDERS AND SAFETY CLIMB DEVICES SHALL CONFORM w/CURRENT OSHA STANDARDS.

3. SEE PROJECT SPECIFICATIONS FOR SHOP AND FIELD PAINT REQUIREMENTS.
4. STERILIZE TANK IN ACCORDANCE w/ AWWA C652 AND PROJECT

# Port of Cotes Landing TANK SITE Old S.R. 22 © Cotes Landing Rd. N Page 10 Jane 11 Jane 12 Ja

EXISTING	LEGEND	PROPOSED
——————————————————————————————————————	SEWER MAIN	SA
——————————————————————————————————————	- SS FORCE MAIN	15. ŁW
$\bowtie$	SEWER VALVE	×
$\triangleright$	PLUG AND BLOCK	$\triangleright$
$\triangleright$	REDUCER	D
	CASING	•
_	BORE PIT	0
<sub>1</sub>	SEPTIC FIELD	-
	RIGHT-OF-WAY	-
	PROPERTY LINE	
-	PERM. EASEMENT	
	- LEVEE	-
	ASPHALT	-
	GRAVEL	
	SIDEWALK	
Ø	POWER POLE	-
	BUILDING	-
	STRUCTURE	-
x x x	- FENCE	xx(
<u> </u>	STORM DRAIN	<b>)</b>
6" W	- WATER MAIN	-
<b>.</b>	FIRE HYDRANT	-
	BLOW OFF	-
——————————————————————————————————————	- ELECTRIC	_
—— —— P(UG) —— ——	- ELECTRIC (UNDERGROUND)	-
-	RAIL (FUTURE)	

## CONTRACT 122 DRA WATER SYSTEM IMPROVEMENTS TO SUPPORT SINOVA GLOBAL

### APPROVAL

SPECIFICATIONS.

The City approves the design of this project and agrees to own, operate, and maintain this project once in operation. There will be no negative effects to customers or the system. City of Tiptonville Utilities

Hent Hoberson 4/8/

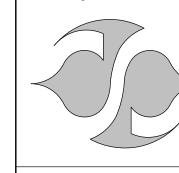
### **Prepared By:**

Joel B. Spaulding & Company, Inc. - Consulting Engineers 3322 West End Avenue, Suite 106
Nashville, Tennessee 37203
(615) 255-7766 | info@joelbspaulding.com
www.joelbspaulding.com

TO BE CONSTRUTED WITH FUNDS
PROVIDED BY THE DELTA REGIONAL
AUTHORITY INVESTMENT NO. TN-54275.



Joel B. Spaulding & Company, In Consulting Engineers Bruce Spaulding, PE | J.B. Spaulding, PE, LEED AP

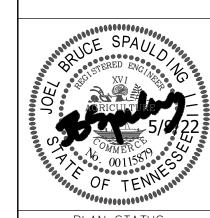


Nashville, Tennessee 37203

Phone: (615) 255-7766

Email: info@joelbspaulding.com

City of Tiptonville, Lake County, T RA Water System Improvements to Support Sinova Global



PLAN STATUS

4/11/22 TDEC DWR Subm.

xx/xx/22 TDEC DWR Appr.

DATE DESCRIPTION

JBS JBS BS

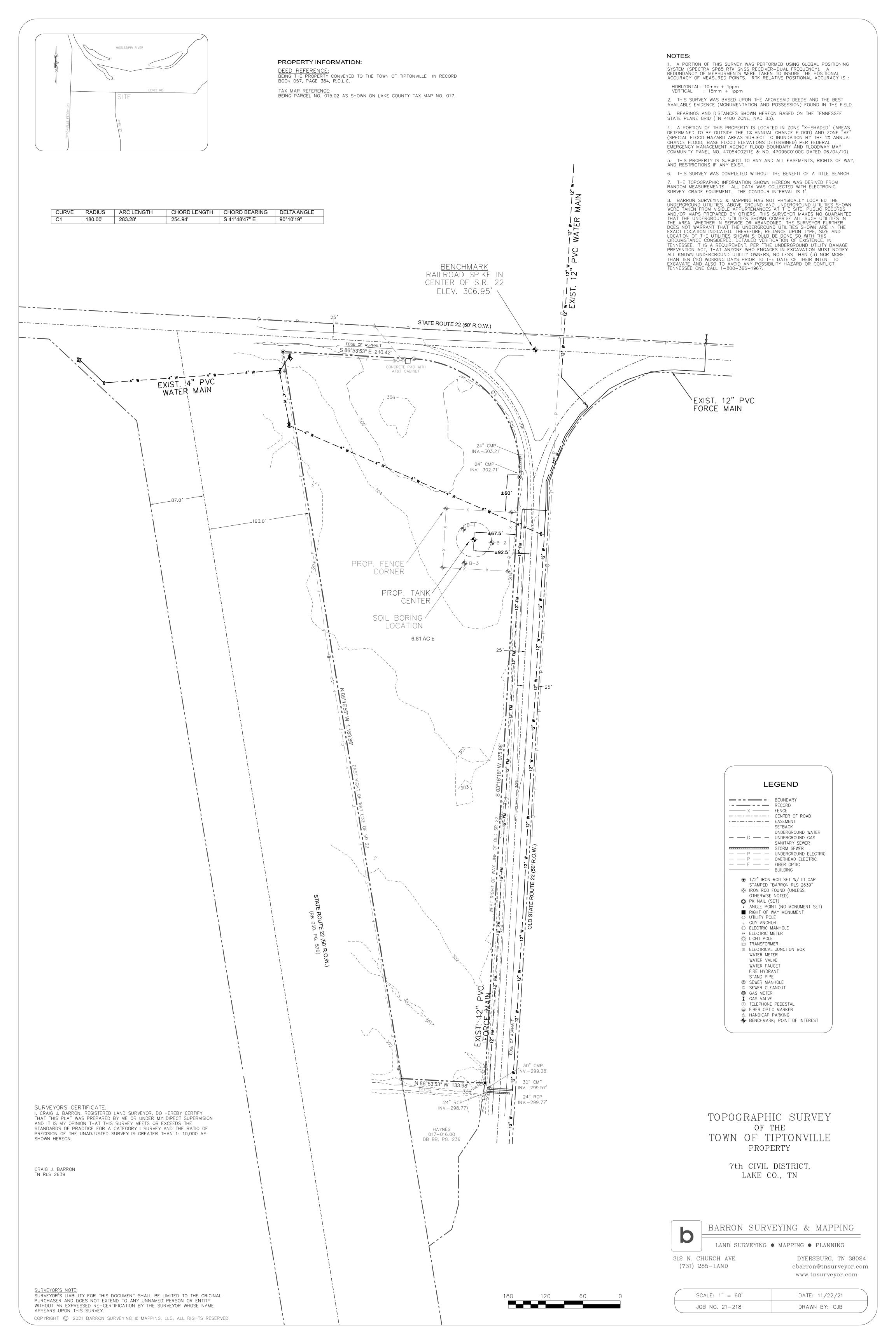
DESIGN DRAWN CHECKEE

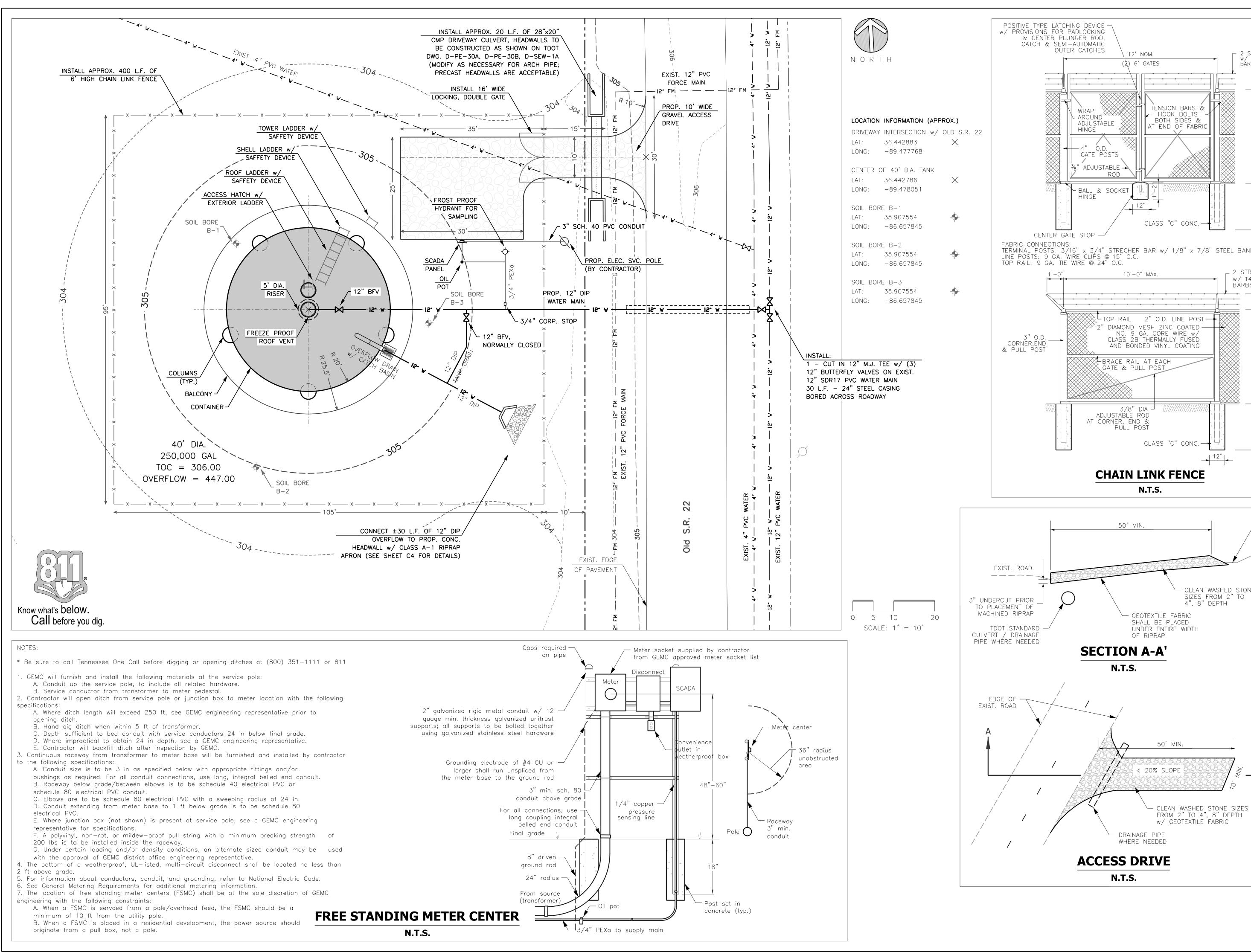
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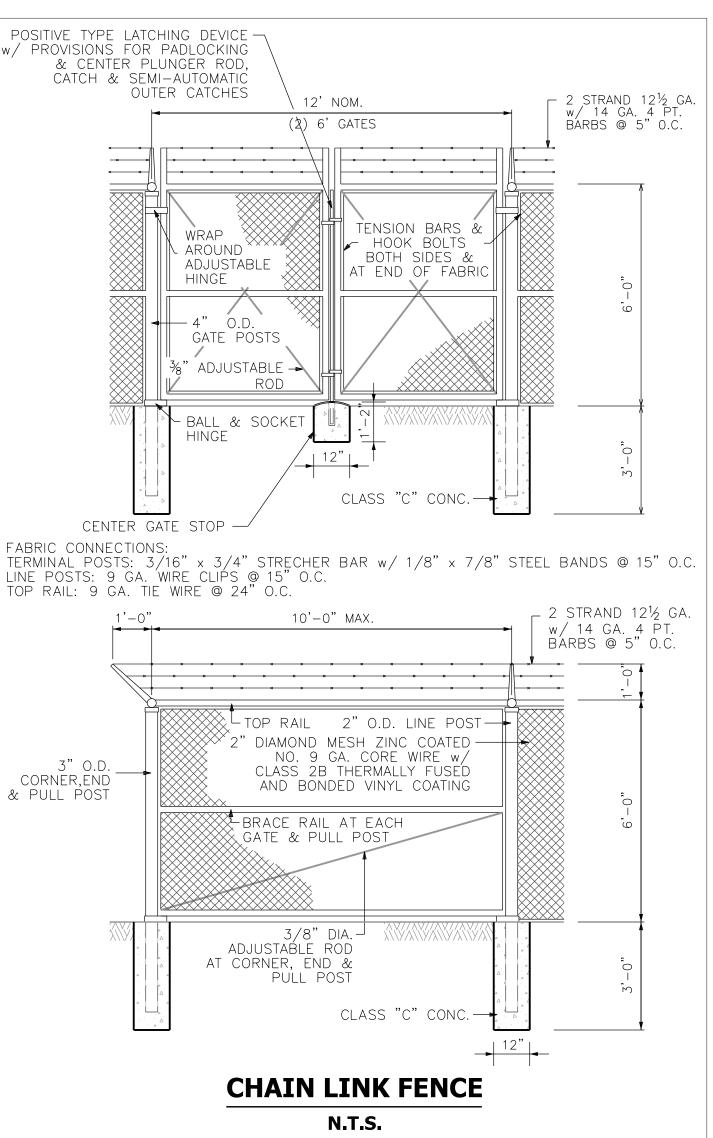
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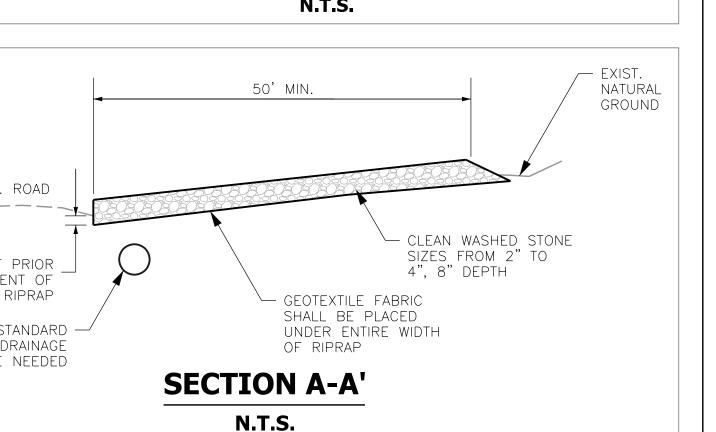
JOB No.: Contract 122

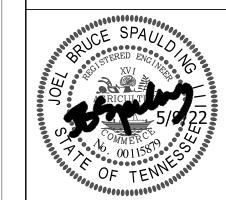
DATE: May 2022











City RA V

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PLAN STATUS /11/22 | TDEC DWR Subm x/xx/22 TDEC DWR Appr.

DATE DESCRIPTION JBS BS DESIGN DRAWN CHECKED SCALE (H): As Shown

SCALE (V): N/A JOB No.: Contract 122

DATE: May 2022

### 1. DESIGN CRITERIA

1.A. THE TANK AND SUPPORT STRUCTURE SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH AWWA D100-11 AND THE PROJECT SPECIFICATIONS.

### 2. MATERIALS

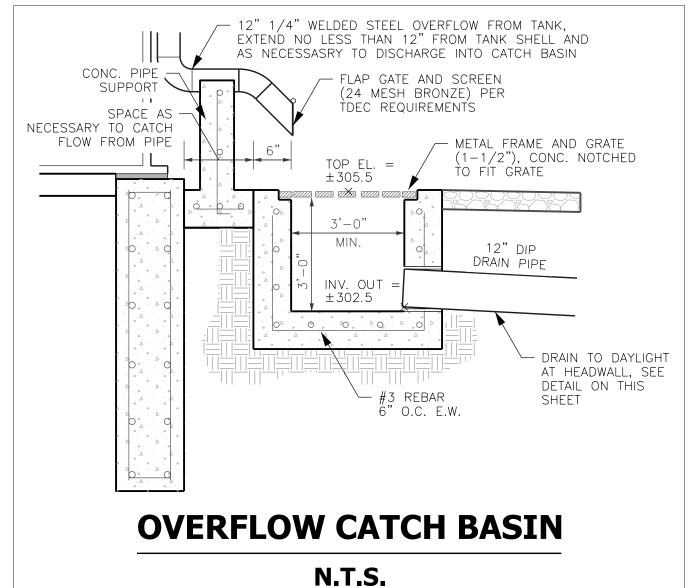
2.A. STEEL PLATE: ASTM A283 OR ASTM A36

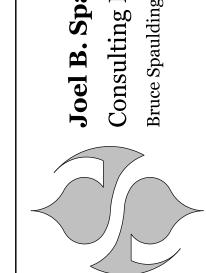
2.B. STRUCTURAL SHAPES: ASTM A36 OR ASTM A992

2.C. LADDER RUNGS: ASTM A706

### 3. GENERAL

- 3.A. ALL ACCESSORIES SHOWN ON THE ELEVATION DRAWING ARE ROTATED FOR CLARITY. SEE PREVIOUS SHEET FOR TANK AND ACCESSORY ORIENTATION.
- 3.B. THE NUMBER OF PERIMETER COLUMNS SHALL BE PER MANUFACTURER'S STANDARD DESIGN.
- 3.C. ALL LADDERS, LADDER SAFETY DEVICES, PLATFORMS, HANDRAILS, ETC. SHALL CONFORM TO CURRENT OSHA REGULATIONS.
- 3.D. TANK CONTRACTOR SHALL GROUT BENEATH COLUMN AND RISER BASE PLATES UPON COMPLETION OF ERECTION.
- 3.E. SURFACE PREPARATION AND COATING REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 3.F. THE TANK SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C652-02.





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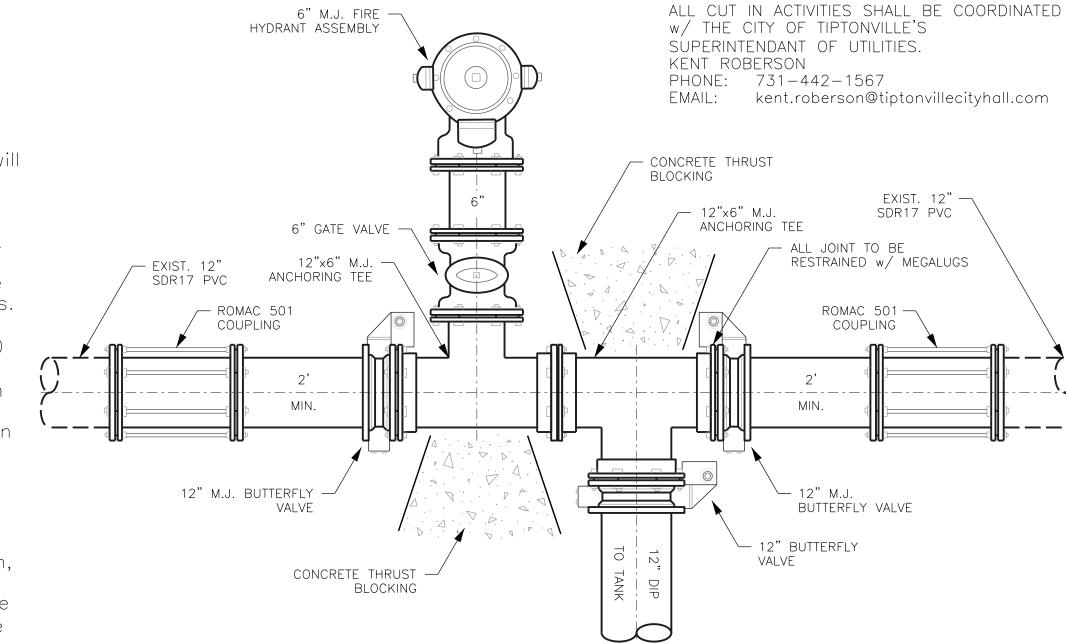
Glob

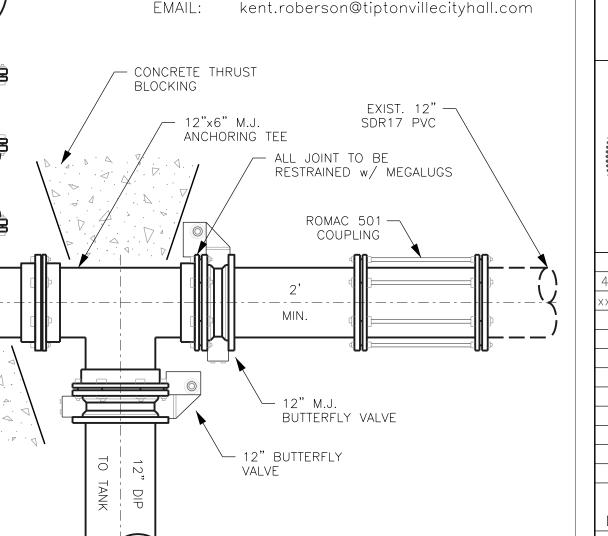
ater System I Support Sino

50,000

Enginee

EXPOSED EDGES TO BE CHAMFERED 1"x1 AND BACK OF FINISHED #4 - 18" O.C. -WALL 1/2" GRADE T&B STAGGERED BOTTOM SLAB -REINFORCING VARIES 12" PC350 DIP — OVERFLOW 7'-6" FRONT ELEVATION **PLAN** INSTALL 12" FLAPGATE #5-12" O.C. — #4-18" O.C. T&B 2" CLEAR — #4-12" O.C. -SLOPE PIPE TO ENSURE DRAINAGE 2-#4 — **SECTION B-B' SECTION A-A' HEADWALL DETAIL** N.T.S.





**CUT IN TEE DETAIL** 

N.T.S.

PLAN STATUS /11/22 TDEC DWR Subm /xx/22 TDEC DWR Appr.

City RA V

DATE DESCRIPTION JBS DESIGN DRAWN CHECKED SCALE (H): N/A SCALE (V): N/A JOB No.: Contract 122 May 2022

1. Field assemble prior to cutting existing water main.

2. Downtime is limited to 2 hours. Residential customers will be out of service until installation is complete.

3. Flange by compression couplers shall be flange by

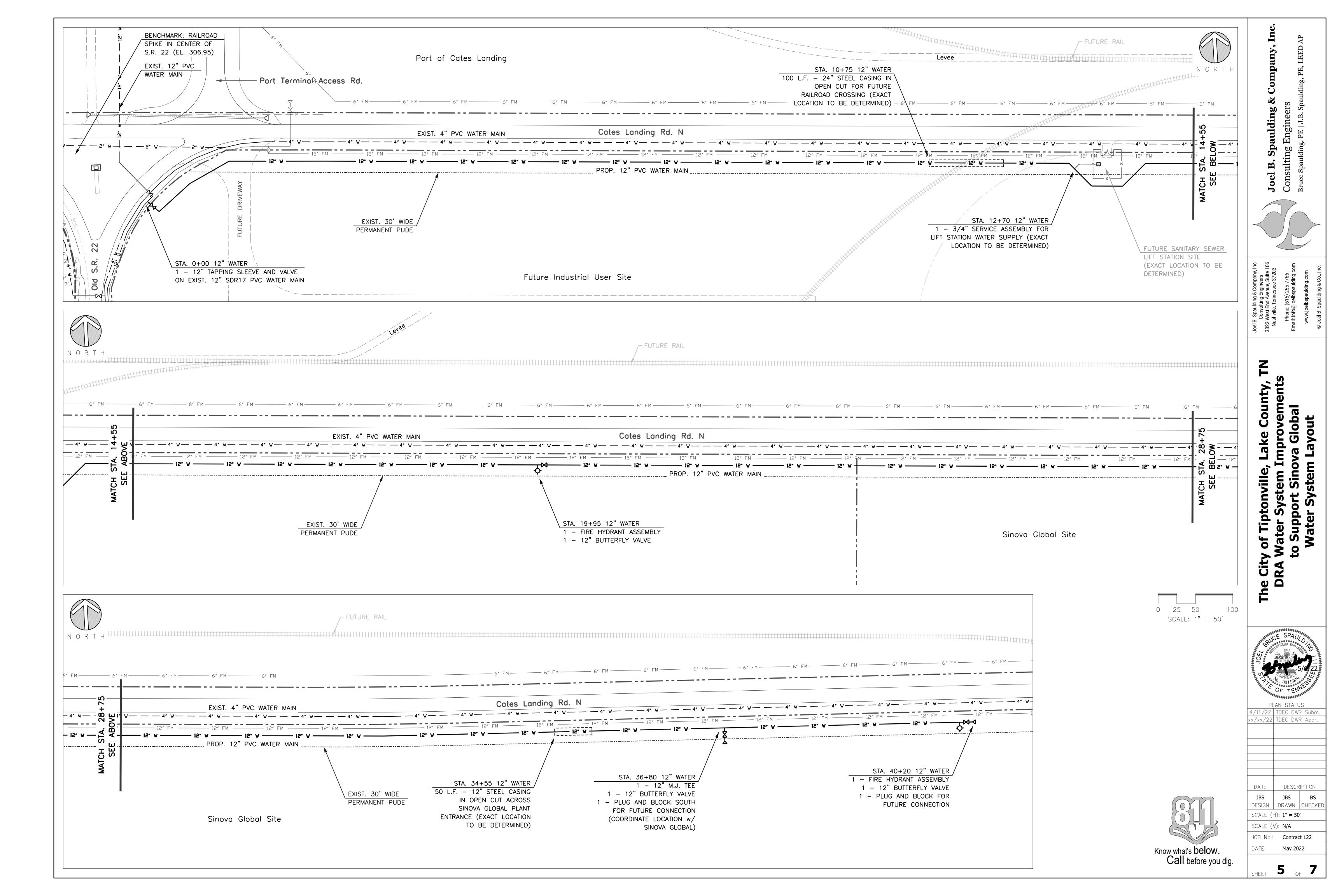
mechanical joint coupling adapter.
4. Fittings shall be either flanged or mechanical joint type. 5. All below ground nuts, bolts, and miscelleneous steel shall be polyethylene encased as per AWWA C-105 or tape wrapped per AWWA C-209, 20 mils minimum in both cases. 6. Connection shall be made w/ retained mechanical joint solid sleeves (short or long pattern) Ductile Iron Class 350 or compression couplings.

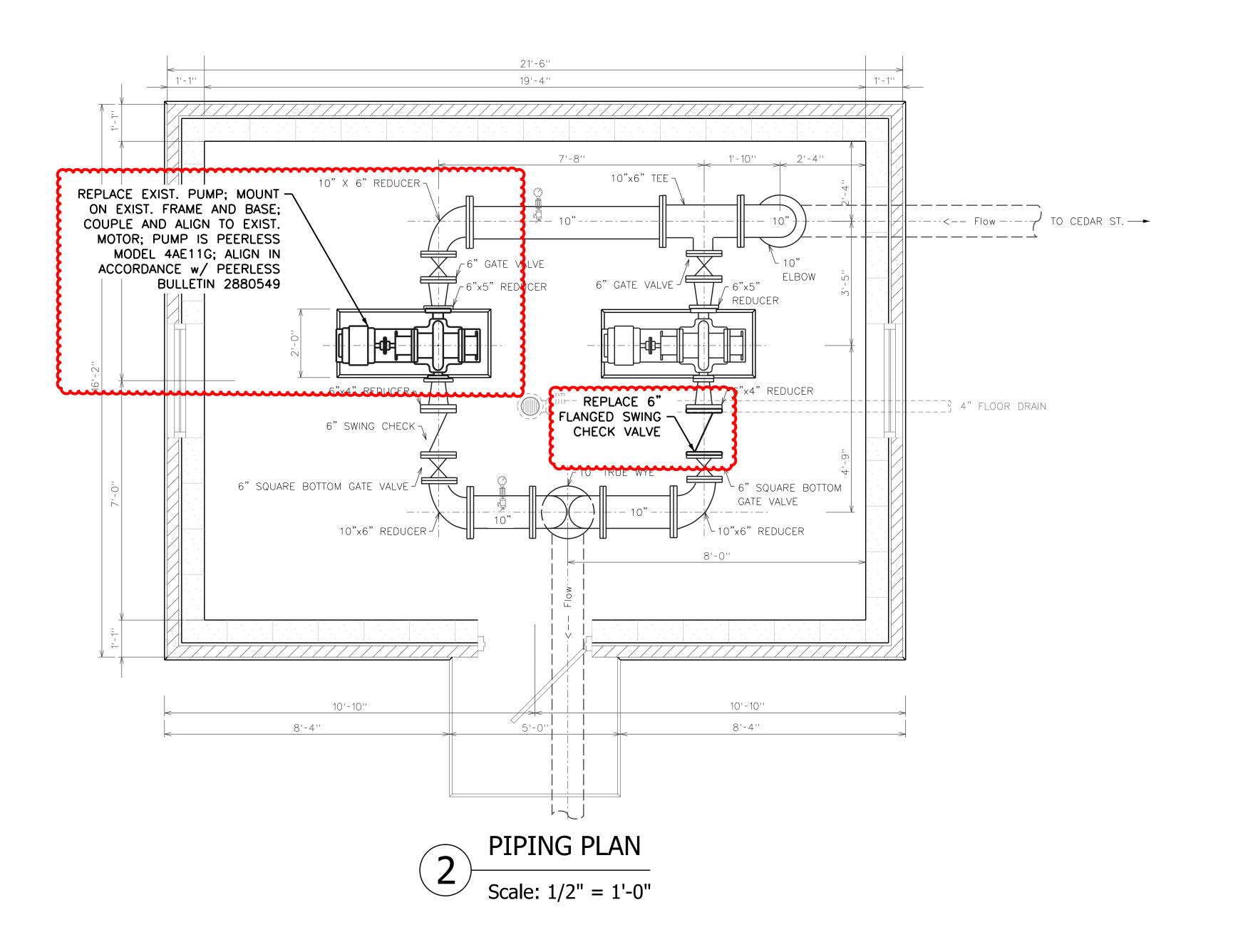
7. The compression coupling shall be rated for a minimum working pressure of 250 psi and shall be equal to the Romac 501, Dresser Style No.'s 38, 138, or 162 (transition type), or Smith-Blair 441 straight and transition coupling.

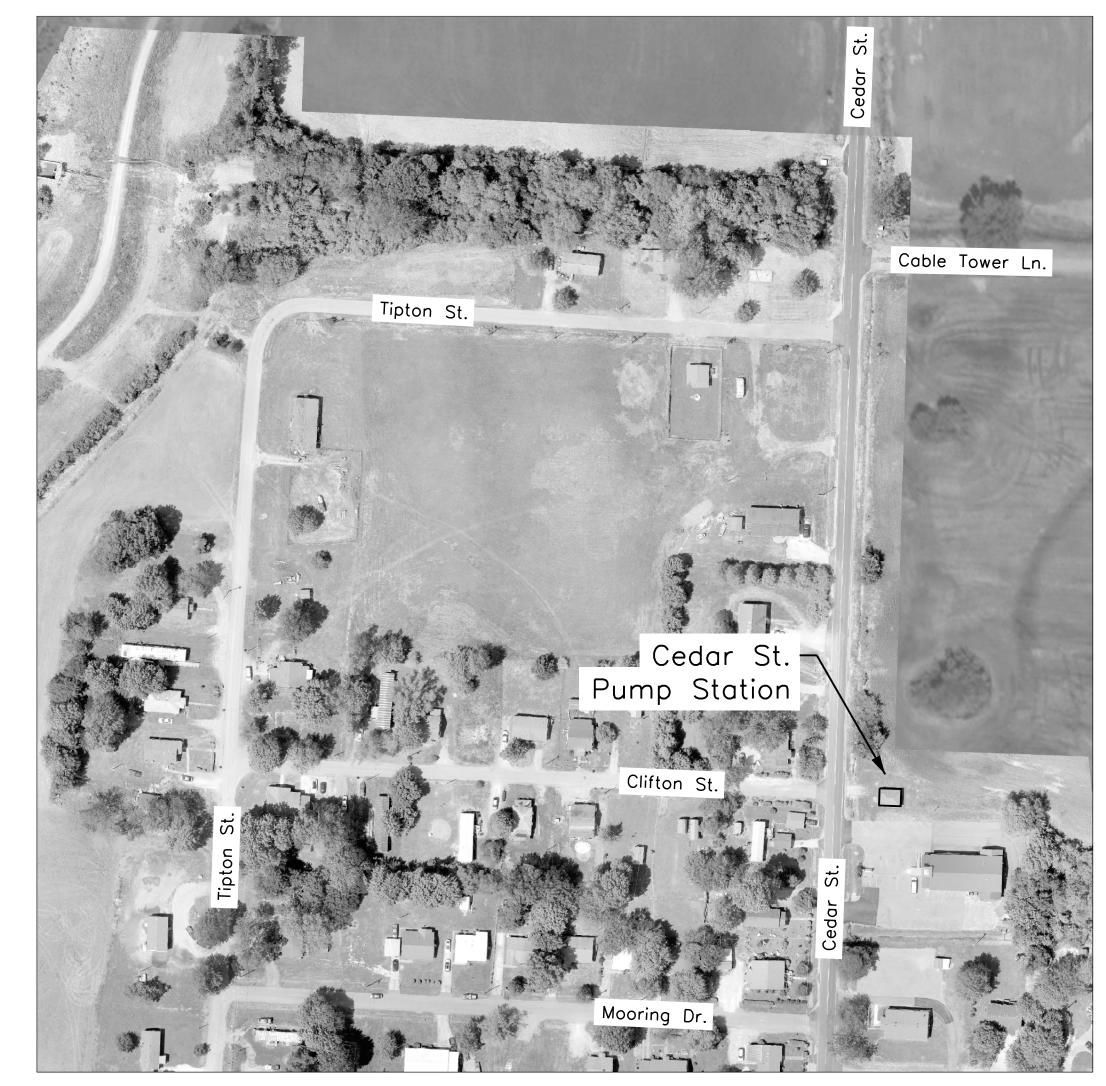
Rod and clamp compression coupling. 8. For severe angular pipe deflection, Romac Style RR501

repair coupling shall be used or approved equal. 9. PVC stubs shall be 2 feet (2') minimum in length and have a class and pressure rating equal to, or greater than, the existing water main.

10. At the Contractor's expense, additional fittings and pipe sections may be required by the Engineer to accommodate severe misalignments in the pipeline after it has been cut.







VICINITY MAP Not to Scale

## **NOTE**

CONTRACTOR SHALL VERIFY ACTUAL DIMENSIONS, LOCATING CENTERLINES OF THE VERTICAL RUNS OF THE INLET AND OUTLET PIPES.

ALL FLANGES 150 LB

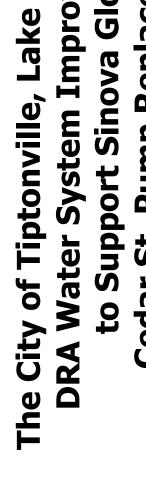
PUMP CHARACTERISTICS

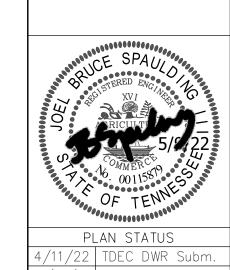
PUMP MODEL: PEERLESS 4AE11G HORIZONTAL SPLIT CASE TYPE:

CAPACITY: TOTAL HEAD: PUMP SPEED: 600 gpm 100 ft 1,765 rpm 11.25 in (FULL) IMPELLER DIAMETER: 25 hp 284T

POWER: FRAME / MODEL: ELECTRICAL SPEC.: 3 PHASE, 230 V, 60 Hz

ROTATION: ENCLOSURE / TYPE: MOTOR: LEFT HAND (CCW)
ODP N/A (REUSE EXIST.)



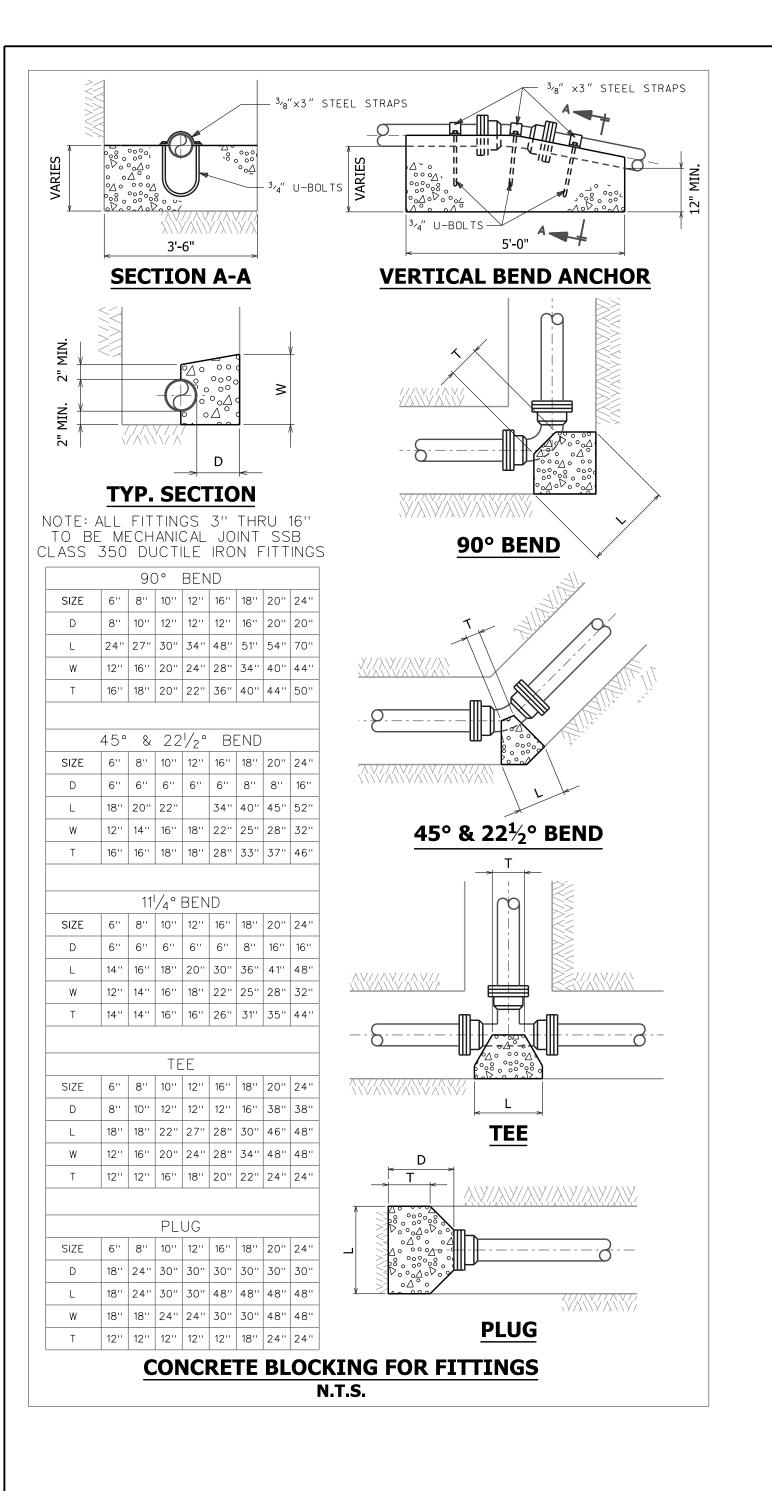


4/11/22 TDEC DWR Subm. xx/xx/22 TDEC DWR Appr.

DATE DESCRIPTION JBS BS DESIGN DRAWN CHECKED SCALE (H): 1/2" = 1'-0"

SCALE (V): N/A JOB No.: Contract 122 May 2022 DATE:

**6** OF **7** 



CARSONITE UTILITY MARKER OR

CONC. COLLAR

 $\langle \vee // \rangle \langle \vee // \rangle \langle \vee // \rangle$ 

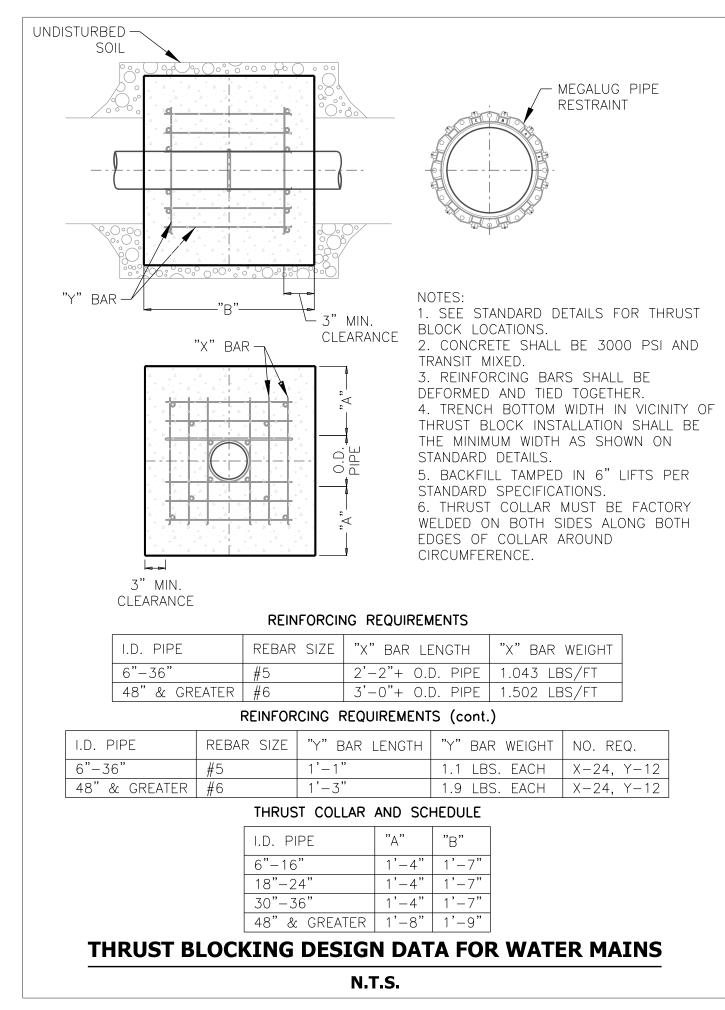
BLUE W/ BLACK LETTERING

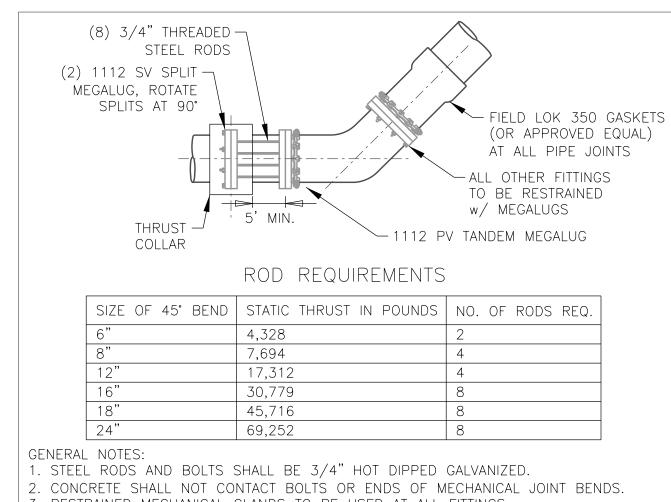
APPROVED EQUAL

**VALVE MARKER** 

N.T.S.

VALVE BOX





3. RESTRAINED MECHANICAL GLANDS TO BE USED AT ALL FITTINGS.

### 4. MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY. 5. 3' MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS

STANDARD BEND w/ REVERSE KICKER

N.T.S.

- WATER MAIN

**PLAN** 

**ELEVATION** 

WATER MAIN

CONC. BLOCK

**PLAN** 

CONC. BLOCK

**ELEVATION** 

CONC.

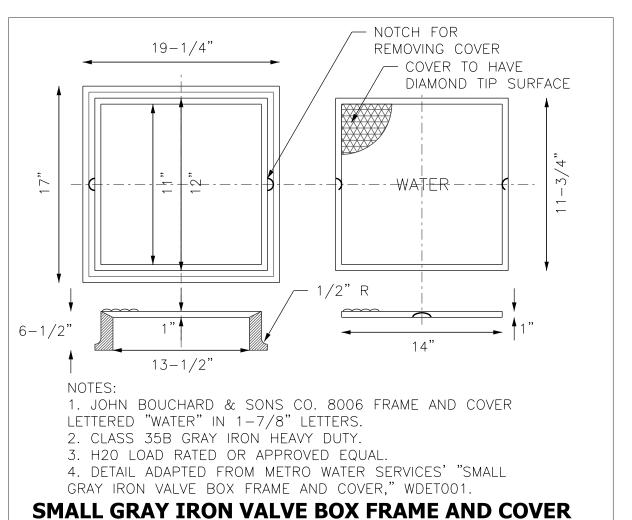
CONCRETE: 4,500 psi @ 28 DAYS REINFORCED w/ WELDED WIRE MESH

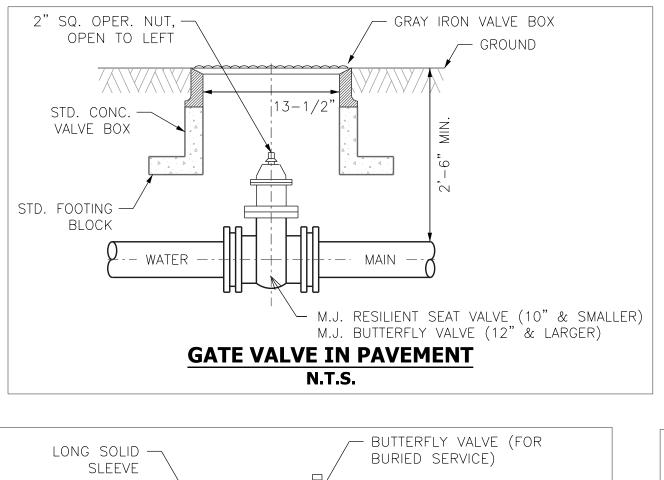
FOOTING BLOCK FOR SMALL

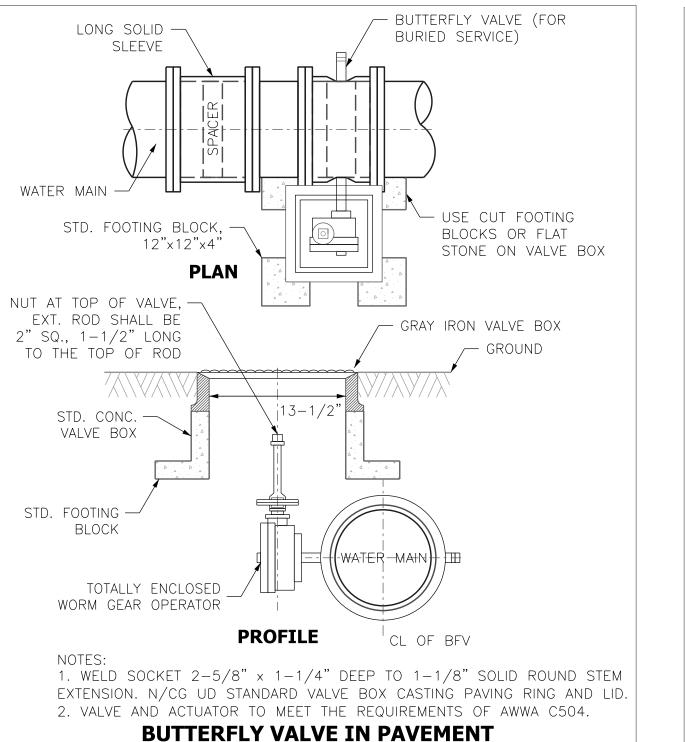
CONC. BOX w/ OPEN BOTTOM

N.T.S.

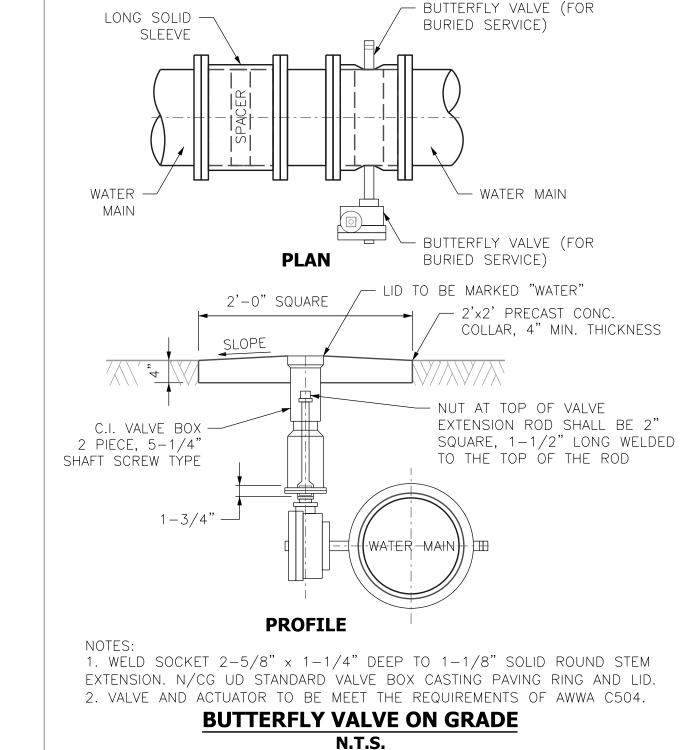
FOOTING BLOCK







N.T.S.



LID TO BE MARKED "WATER"

- C.I. VALVE BOX

**GATE VALVE ON GRADE** 

2 PIECE, 5-1/4"

SHAFT SCREW TYPE

- 2'x2' PRECAST CONC. COLLAR,

4" MIN. THICKNESS

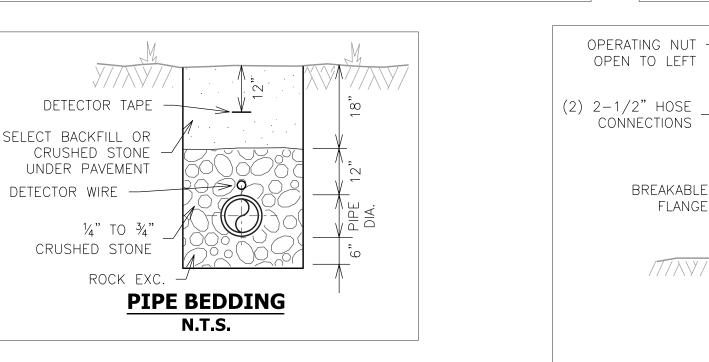
M.J. RESILIENT SEAT VALVE (10" & SMALLER)

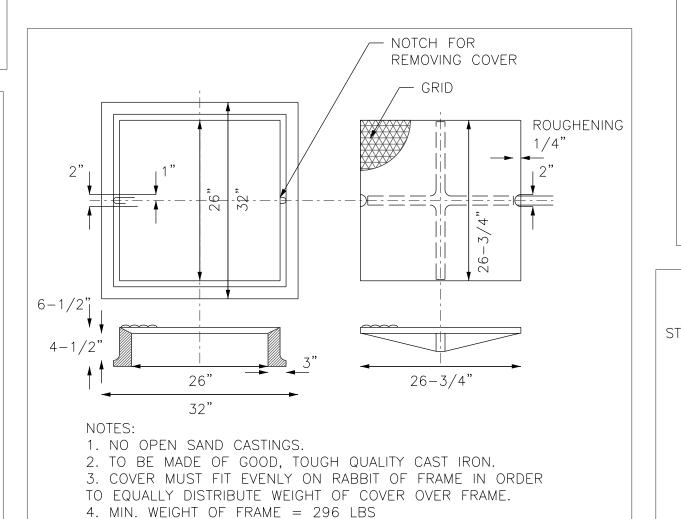
M.J. BUTTERFLY VALVE (12" & LARGER)

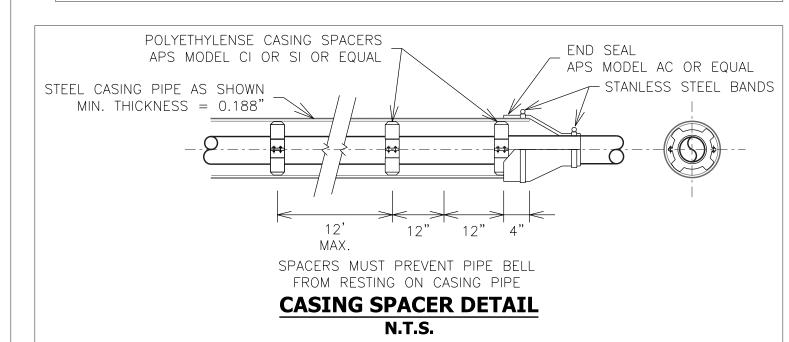
2'-0" SQUARE

OPER. NUT,

OPEN TO







FIRE HYDRANT SETTING

N.T.S.

FLANGE

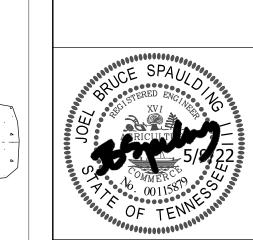
 $/7/\lambda \forall //\lambda$ 

3 CU. FT.

TYP. CONC. BLOCKING

LEAVE WEEPHOLE OPEN

CRUSHED STONE



City RA V

**O** 

Consulting

Globa

of Tiptonville, ater System Support Sinc Typical De

May 2022

SCALE (V): None JOB No.: Contract 122 DATE:

DATE JBS DESIGN | DRAWN | CHECKED SCALE (H): None

PLAN STATUS /11/22 TDEC DWR Subm ×/xx/22 TDEC DWR Appr. DESCRIPTION

NOTE: ALL JOINTS & FITTINGS TO

BE RESTRAINED W/ MEGA-LUGS.

CONCRETE BLOCKING REQUIRED.

- 2'x2' SQ. PRECAS1

CONC. COLLAR, 4"

MIN. THICKNESS,

TROWEL FINISH

VALVE AND BOX INC.

IN F.H. LUMP SUM

WATER MAIN -

18" MIN.

LAYING

LENGTH

M.J. ANCHORING TEE, NOT INC. IN

F.H. LUMP SUM, TO BE PAID FOR

BY THE LB. IN FITTINGS PAY ITEM

TYP. CONC. — BLOCKING

-5-1/4" FIRE HYDRANT 3'-6" BURY

-(1) 4-1/2" PUMPER CONNECTION

5. MIN. WEIGHT OF COVER = 234 LBS 6. DETAIL ADAPTED FROM METRO WATER SERVICES' "LARGE SIZE CAST IRON BOX FRAME AND COVER," WDETO16. LARGE CAST IRON VALVE BOX FRAME AND COVER N.T.S.

N.T.S.